

by

GREENBERG

**FIRE HYDRANTS - VALVES
STANDPIPE FITTINGS**

**FIRE PROTECTION
BRASS AND
BRONZE PRODUCTS**

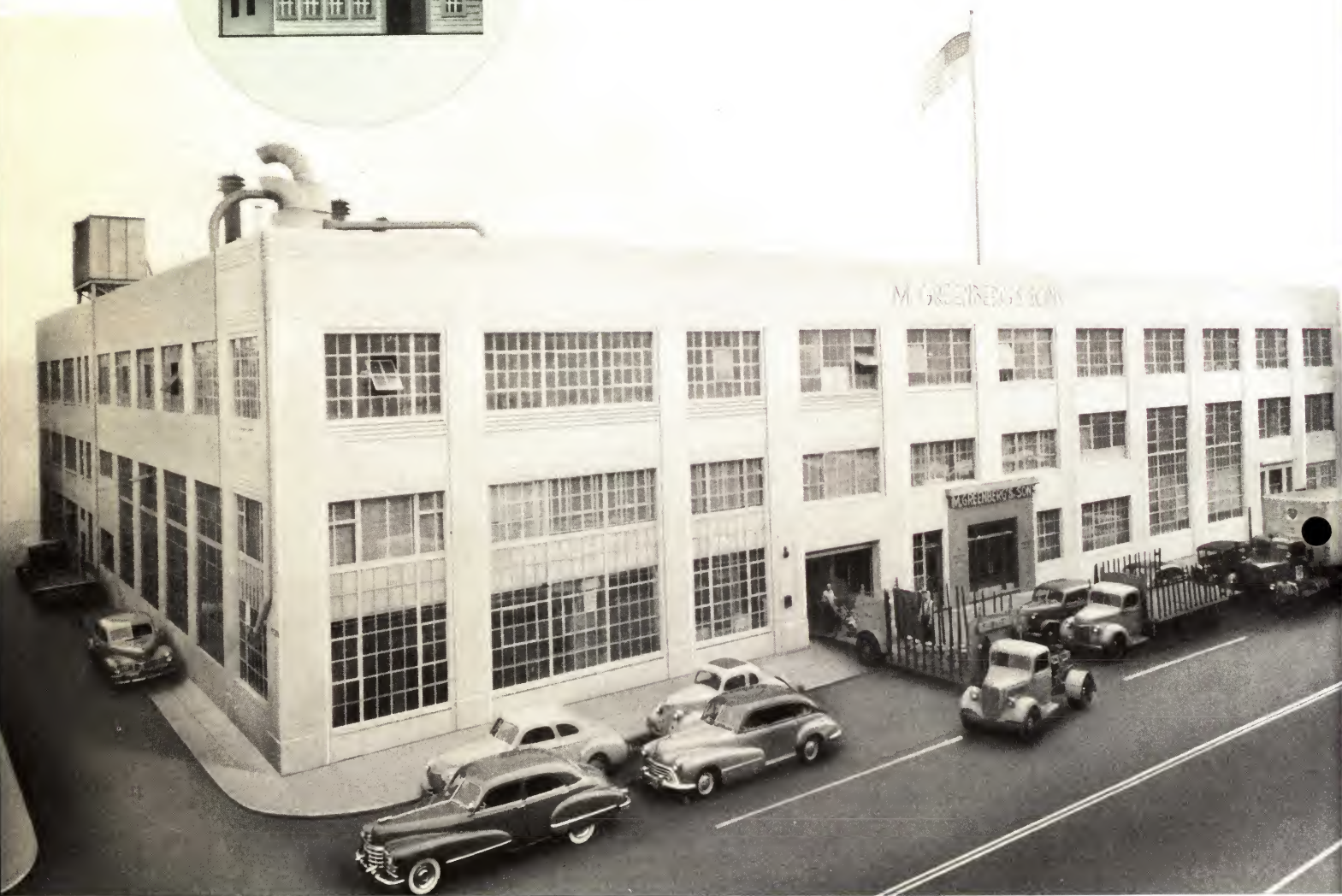
CATALOG NO. 10



M. GREENBERG'S SONS

MANUFACTURERS OF BRONZE

765 FOLSOM STREET • SAN FRANCISCO 7 • CALIFORNIA
TELEPHONE • EXBROOK 2-3143



Quality merchandise, proper service and integrity of operations have made possible the steady expansion of activities from the humble beginning in San Francisco in 1854 to the modern plant and operating facilities now available to you, our customers.

PRODUCTS SINCE 1854

Today, M. Greenberg's Sons is a major west coast manufacturer of brass and bronze products for a variety of uses: fire protection, plumbing and hardware jobbing, marine and industrial installations, and waterworks projects.

Greenberg's leadership in fire protection goes back three-quarters of a century. In 1876 "south of the slot" at 205 Fremont Street, Morris Greenberg and his son Joseph, with men from the San Francisco Fire and Water Departments, evolved what has become popularly known as the "California Type" fire hydrant. "They builded better than they knew" for over the years only minor mechanical changes were necessary. The one major improvement, the break-off check was designed and patented by a grandson, Stuart N. Greenberg, present head of the company.

Burned out completely in the earthquake and fire of April 18, 1906, Greenberg's business reputation, integrity and ingenuity had a new plant functioning 18 days later. It was ready to supply the many and varied fire protection products that the city of San Francisco required for its new fire prevention regulations. To this day, these products are accepted throughout the west as a superior standard of equipment.

Today, backed by an excellent combination of long experience, loyal personnel and modern facilities, Greenberg's fire protection equipment is keeping abreast of modern requirements. The company is continuing to grow, upholding the Greenberg ideal—"We cannot stand still, we must go forward."



Stuart N. Greenberg

M. GREENBERG'S SONS IS A RESPONSIBLE MANUFACTURER

More than 95 years of continuous growth are a reflection of Greenberg's sound business practice and active concern for customer satisfaction. Hoping to avoid misunderstandings, we set forth the following conditions of sale.

1. All Greenberg products are guaranteed against defects of material and workmanship, and if notified within reasonable time, we will accept responsibility up to the value of the article. To avoid confusion and expense, we should be consulted before merchandise is returned.
2. Deliveries and contracts will be expedited, but are subject to strikes, accidents, or other causes beyond our control.
3. Designs are standardized insofar as possible and price fluctuations are minimized, but both are subject to change without notice.
4. Cancellation of orders covering special goods can be accepted only upon agreement to pay for work already performed. A catalog or price sheet listing or illustration shall not be construed to mean that an article is a stock item, but this can be clarified at time of sale.
5. To avoid unnecessary shipping costs, inspection and acceptance of special goods must take place at our plant, releasing us from responsibility upon shipment.

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FIRE HYDRANTS

IMPROVED CALIFORNIA TYPE BY GREENBERG



No. 74

This widely used Greenberg hydrant is approved by both Underwriters' Laboratories, Inc., and the Associated Factory Mutual Fire Insurance Companies.

**APPROVED BY
UNDERWRITERS' LABORATORIES, INC.
AND
THE ASSOCIATED FACTORY MUTUAL
FIRE INSURANCE COMPANIES**

- **Independent valves** permit the addition of extra fire lines without shutting off hydrant outlets already in operation.
- **Fast breaking valve design** eliminates water hammer and valve chatter, permitting smooth operation up to the full 200 p.s.i. working pressure.
- **Full 6-inch stream** through the body provides unrestricted water supply to all outlets.
- **Integral deflector head** improves flow through the hydrant to deliver greatest possible pressure to the outlets.
- **Bronze working parts throughout** are few in number and are carefully machined to assure long trouble-free service.
- **Heavy cast iron body** is ribbed for extra strength and threaded for easy removal of all working parts.
- **Underwriters and Factory Mutual** have approved the most widely used Greenberg hydrants.

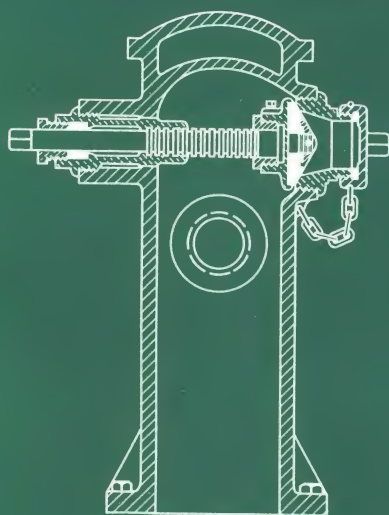
To improve fire fighting efficiency by permitting the attachment of additional hoses without interrupting flow, M. Greenberg's Sons originated the Independently Valved California Type Hydrant. The improved type adapts this advantageous principle to modern high pressure fire fighting. Even at full 200 pounds working pressure, the high pressure valves in these hydrants operate without chatter or water hammer. The Greenberg Improved California Type Hydrant is the most widely preferred design throughout the Western States, Hawaii, the Philippines and the South Pacific, having won the endorsement of fire chiefs, waterworks superintendents and engineers everywhere.



No. 71

No. 75

No. 76



No. 74 GREENBERG HYDRANT
shown in cross section

TYPES, SIZES AND SPECIFICATIONS

NO.	71	72	73	†*74	75	*76	77	78
OUTLETS	Single 2½"	Single 2½"	Double 2½"	Double 2½"	Steamer and one 2½"	Steamer and two 2½"	3-way 2½"	Double steamer
BURY INLET TO CALK	4"	6"	4"	6"	6"	6"	6"	6"
HEIGHT DIMENSIONS FROM BOTTOM FLANGE OF BODY								
OVER-ALL	25¼"	25¼"	25¼"	25¼"	26½"	32"	32"	32"
TOP OUTLET	18½"	18½"	18½"	18½"	19"	25½"	25½"	23½"
2ND OUTLET			14"	14"	13"	21"	21"	15"
3RD OUTLET						15"	15"	
APPROXIMATE SHIPPING WEIGHT IN LBS.								
WITH 30" BURY	280	315	326	360	395	435	405	465
BODY ALONE	150	150	196	196	235	272	245	302

* Approved by Underwriters' Laboratories, Inc. — Mark GR-UN

† Approved by the Associated Factory Mutual Fire Insurance Companies — Mark FM

OUTLET THREADS are 2½" National Standard Hose Threads (N.S.T.) unless otherwise requested. Special hose threads can be furnished to your specifications.

STEAMER OUTLETS are furnished standard with 4½" National Standard Hose Threads. Other threads can be made to your specifications or sample. These steamer outlets provide an unrestricted 4½" stream for maximum water supply to the pumper.

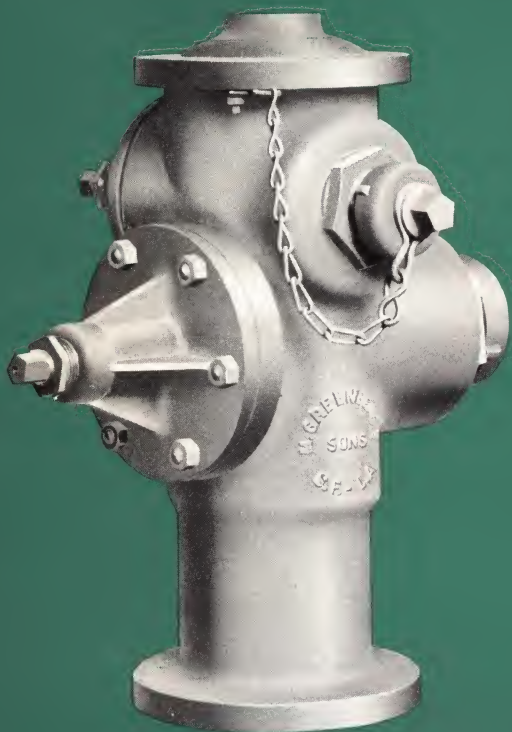
BURIES of 30" length are standard. All other lengths are available, those shorter than 30" being furnished at no extra cost. Standard inlet size will calk 6" cast iron or Transite pipe (except Nos. 71 and 73). If desired, 4" calk type buries can be provided on any model at no extra cost. Four-inch and six-inch flanged inlets are also available (at extra cost).

HYDRANT BREAK-OFF CHECK VALVES can be furnished on any Greenberg Improved California Type Hydrant. They provide instantaneous shut-off of water if the hydrant is broken off by collision. See page 8 for complete description.

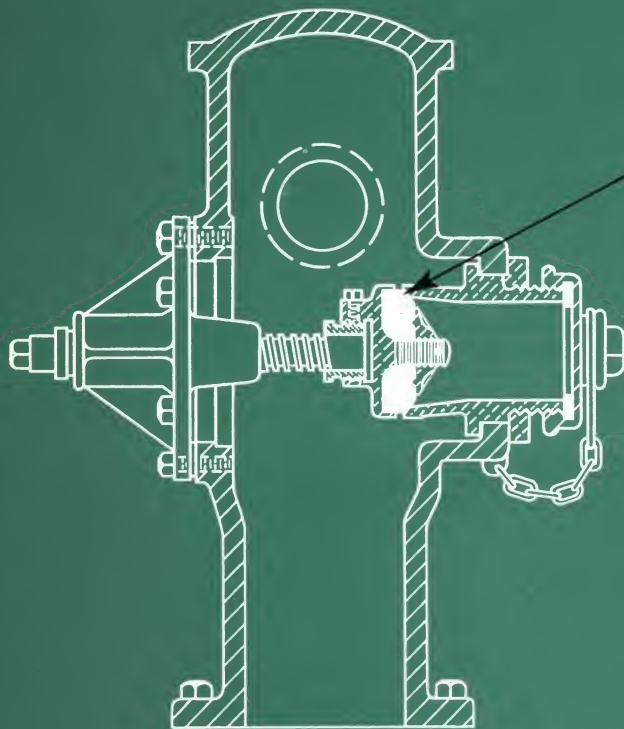
PARTS for these and all other types of Greenberg fire hydrants are listed on page 9.

FIRE HYDRANTS

LOS ANGELES TYPE – Regular, Greenberg Improved, and Bakersfield Hydrants



No. 50LA LOS ANGELES TYPE STEAMER



No. 56GR GREENBERG LOS ANGELES TYPE STEAMER,
shown in cross section

- **Independent valves** permit attaching of additional fire lines without interrupting flow to those already in operation.
- **Bolted-in valve construction** conforms to the specifications of the City and County of Los Angeles.
- **Full 6-inch body** provides ample flow to all outlets. Body is sturdily constructed of cast iron.
- **Bronze working parts throughout** are accurately machined to operate smoothly and give maximum length of trouble-free service.
- **Fast breaking valves** on the Bakersfield model and the Greenberg Improved Los Angeles type hydrants eliminate valve chatter and water hammer, as well as providing a greater volume of flow than the regular model.
- **Bolted-in valve construction** simplifies maintenance in extended municipal areas. Complete valve mechanisms can be exchanged at the hydrant location and returned to a centralized repair shop.

To improve the performance of the Los Angeles type hydrant, Greenberg has adapted a new quick breaking valve and seat to the basic body design. This new valve (supplied on Bakersfield models and the Greenberg Improved Los Angeles type) eliminates valve chatter and water hammer and provides greater flow of water. It operates smoothly at any water pressure up to the full 200 pounds permissible for the hydrant. The Greenberg Improved model uses the same body as the regular Los Angeles type. Thus it is simple and practical to convert older hydrants to this new model by use of a few bronze parts of this new design. The older Los Angeles type, the Greenberg Improved Los Angeles hydrants, and the Bakersfield design are all currently manufactured by us.

THE BAKERSFIELD HYDRANT was developed by M. Greenberg's Sons to improve both the performance and convenience of the Los Angeles bolted-in valve type. In addition to the improved valve design to increase water flow and eliminate chatter and water hammer, it uses a steamer outlet placed above the regular outlet. This upper placement of the steamer permits the stiff, heavy pumper hoses to be attached with less bending and twisting.

TYPES, SIZES AND SPECIFICATIONS

NO.	40LA and 52 GR	45LA and 53 GR	50LA and 56 GR	51LA and 57 GR	55LA and 58 GR	54 BAKERS- FIELD
OUTLETS	Single 2 1/2"	Double 2 1/2"	Steamer and 1-2 1/2"	Steamer and 2-2 1/2"	Double steamer	Steamer and 1-2 1/2"
BURY INLET TO CALK	6"	6"	6"	6"	6"	6"
HEIGHT DIMENSIONS FROM BOTTOM FLANGE OF BODY						
OVER-ALL	25 1/2"	26"	27 1/4"	35 3/4"	29"	27"
TOP OUTLET	18"	18"	20"	28 1/2"	20 1/2"	19"
2ND OUTLET		13"	14"	22"	14"	13"
3RD OUTLET				14"		
APPROXIMATE SHIPPING WEIGHT IN LBS.						
WITH 30" BURY	325	375	460	525	595	460
BODY ALONE	165	215	290	360	430	290

OUTLET THREADS are 2 1/2" National Standard Hose Threads (N.S.T.) unless otherwise requested. Special hose threads can be furnished to your specifications.

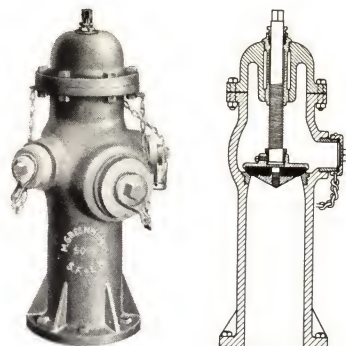
STEAMER OUTLETS are furnished standard with 4" Pacific Coast Hose Threads or 4 1/2" National Standard Hose Threads. Other threads can be made to your specifications or sample. These steamer outlets provide an unrestricted stream for maximum water supply to the pumper. Specify which size is desired.

BURIES of 30-inch length are standard. All other lengths are available, those shorter than 30 inches being furnished at no extra cost. Standard inlet size will calk 6-inch cast iron or Transite pipe. If desired, 4-inch calk type buries can be provided on any model at no extra cost. Four-inch and 6-inch flanged inlets are also available (at extra cost).

HYDRANT BREAK-OFF CHECK VALVES can be furnished on any of our Los Angeles Type Hydrants. They provide instantaneous shut-off of water if the hydrant is broken off by collision. See page 8 for complete description.

FLAT BOSS is provided on the top of Los Angeles type hydrants to permit tapping for wharf hydrants or other top connections.

PARTS for these and all other types of Greenberg fire hydrants are listed on page 9.



DEL MONTE TYPE

The Del Monte type hydrants are a single valve design of rugged, simple construction. Though lacking the advantages of independent valving, they have a full 5-inch valve opening and large body diameter that conform to Federal Government specifications. Del Monte type hydrants are used on Army camps, airfields, and other Federal Government property, as well as in many cities throughout the west. Hydrant break-off check valves can be provided on all models.

SIZES AND SPECIFICATIONS

NO.	OUTLETS	BURY INLET TO CALK	APPROXIMATE SHIPPING WEIGHT	
			WITH 30" BURY	BODY ALONE
81	Single 2 1/2"	4"	330	200
82	Single 2 1/2"	6"	360	200
83	Double 2 1/2"	4"	335	205
84	Double 2 1/2"	6"	365	205
85	Steamer and one 2 1/2"	6"	375	215
86	Steamer and two 2 1/2"	6"	400	235



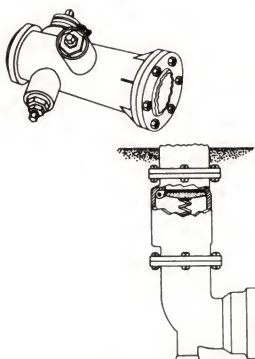
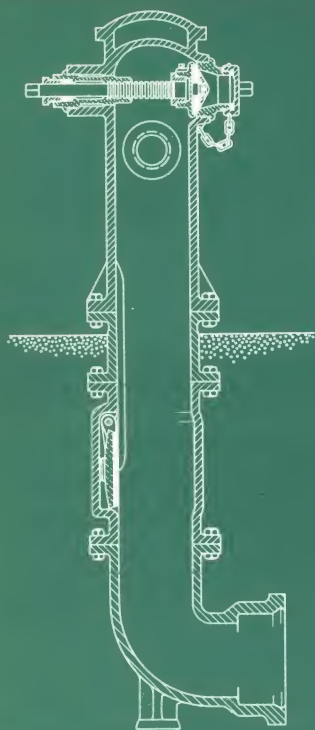
LA MESA TYPE

The La Mesa hydrants, though using the same working parts as the Greenberg California Improved type (Series 70), differ in having bodies that taper down to a 4" base flange. Because of the size of their waterway, they do not conform to most fire regulations, but where 4" mains, 4" bury, and a smaller diameter hydrant will furnish sufficient water, they can be used for a low cost installation of satisfactory performance. The bronze working parts, cast iron body, and rubber valve parts are all of high quality and durability.

SIZES AND SPECIFICATIONS

NO.	OUTLETS	APPROXIMATE SHIPPING WEIGHT
41	Single 2 1/2"	235
42	Single 2 1/2" (Body alone)	125
43	Double 2 1/2"	265
44	Double 2 1/2" (Body alone)	155

HYDRANT BREAK-OFF CHECK VALVE No. 30



No. 30

BREAK-OFF
RISER



BREAK-OFF
BAR

Provides instantaneous water shutoff if the hydrant is broken off by traffic collision—widely used on boulevards, highways and dangerous intersections to save water and avoid damage to hydrants, water mains and private property.

NO CHANGE IN HYDRANT OPERATION

- Used on 6" barrel California hydrants.
- Available in same lengths and inlet sizes as standard buries, 30 inch minimum and over.
- Check valve is completely out of the waterway, allowing normal unobstructed flow.
- Simple mechanism requires no maintenance and is always ready for instantaneous action if hydrant is broken off.

WHEN HYDRANT IS BROKEN OFF

- Shearing at localized break-off point in riser protects hydrant and water mains from damage.
- Shutoff action is instantaneous with no loss of water and with no water hammer damage to mains.
- Small telltale spray of water is provided to attract attention so proper authorities will be notified.
- Replacement of break-off riser and break-off bar puts hydrant back into operation.

REPAIR PARTS

	LIST		LIST
† Break-off Bar.....	\$ 4.65	Bronze Pins.....	\$ 1.35
† Break-off Riser.....	16.00	Bronze Disk and Leather Face.....	10.00
Collision Bury, complete with riser and check valve 30" center of inlet to hydrant body.....	53.30	Bury only, up to 30".....	30.00
For each additional 6", add.....	2.50	Check Valve, Body only, no trimmings.....	24.00
Bronze Spring.....	2.65	Bronze Wing Nuts (set of 2).....	3.35

† Items which must be replaced after hydrant is broken off.

HYDRANT WRENCHES AND HOSE SPANNERS



No. 293A



No. 293B



No. 293C



No. 293D



No. 293E



No. 293F



No. 293G



No. 293H



No. 293K



No. 293L

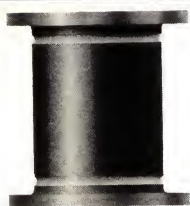


No. 293M

Distance from point to flat of pentagon on all standard wrenches is 1-3/16".

	EACH
No. 293A—Standard combination hydrant wrench and hose spanner.....	\$1.50
No. 293B—Large size combination hydrant wrench and hose spanner.....	2.50
No. 293C—Fire Department type combination hydrant wrench and hose spanner.....	1.50
No. 293D—Single end hose spanner.....	1.25
No. 293E—Four-hole combination hydrant wrench and hose spanner.....	2.50
No. 293F—Five-hole combination hydrant wrench and hose spanner to fit any hydrant....	3.50
No. 293G—Double end hydrant wrench and hose spanner.....	4.50
No. 293H—Hydrant wrench and hose spanner with ladder hook.....	4.50
No. 293K—Common hose spanner, malleable iron. 2 sizes: for 2" and 2½" couplings.....	1.00
No. 293L—Chemical hose spanner with lug to fit sockets in coupling. 2 sizes: for ¾" and 1" couplings.....	1.00
No. 293M—Adjustable hydrant wrench and hose spanner, fits any size pentagon by screwing up handle. Bronze head with tool steel handle.....	3.00

HYDRANT EXTENSIONS OR RISERS



No. 100

Hydrant Extensions or Risers of any length can be furnished to fit all standard hydrants. They are useful where grade has been changed or sidewalk installed, or to connect hydrants to standard flanged tees in trench. This eliminates digging up hydrant bury and pipe. Extensions are furnished complete with one gasket and one set of 6 bolts and nuts. Sizes up to 18 inches have localized break-off points on both ends.

6" Face to Face.....	Each \$16.45
8" Face to Face.....	Each \$17.85
10" Face to Face.....	Each \$19.25
12" Face to Face.....	Each \$20.65
14" Face to Face.....	Each \$21.95
16" Face to Face.....	Each \$23.30
18" Face to Face.....	Each \$24.80
20" Face to Face.....	Each \$26.10
Additional lengths up to 36".	

PARTS AND OVERHAUL SERVICE FOR CALIFORNIA TYPE FIRE HYDRANTS

As the West Coast's largest and longest established manufacturer of fire hydrants, M. Greenberg's Sons has a well established reputation for standing behind its products with parts and overhaul service. Parts are still available for any model hydrant the company has ever built.

HYDRANT REBUILDING SERVICE

After many years accumulation of water deposits, any fire hydrant will require either cleaning and overhaul or complete replacement. M. Greenberg's Sons has shops equipped to overhaul not only its own hydrants, but also California type hydrants of all the other manufacturers who have come and gone in the business. The shops are able to modernize most makes of hydrants by replacing the old valve mechanisms with efficient, trouble free valves of the latest Greenberg design.

HYDRANT PARTS SERVICE

Parts for any Greenberg hydrant can be supplied if the following information is furnished:

1. Type of hydrant (identified from diagrams below).
2. Date on the hydrant barrel (if any).
3. Part numbers and names (see keyed illustration below for each type hydrant).

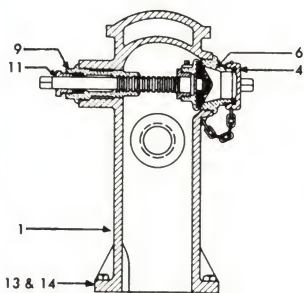
Also this further information if it affects the particular parts being ordered:

4. Thread size of outlets.
5. Valve type (see valve information and part numbers below).

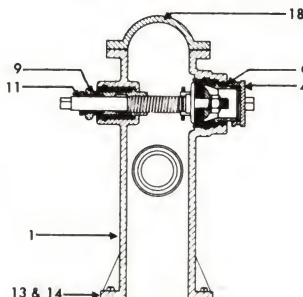
COMPARATIVE DIAGRAMS

Note the distinguishing features which determine the type hydrant you have. Part numbers shown not only refer from the diagram to the names, but are also to be used in ordering parts.

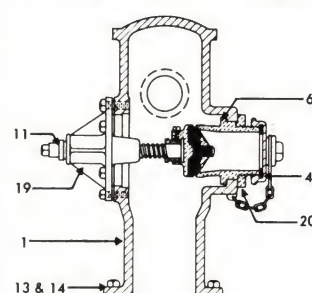
IMPROVED type (Full 6" body)



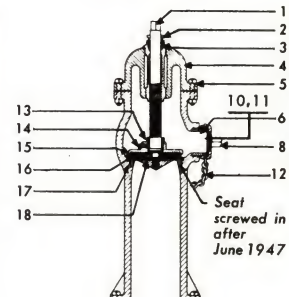
STANDARD and KEYSTONE "Leaded-in" types



LOS ANGELES type Greenberg Improved Regular



DEL MONTE type



Parts names for Improved, Standard, Keystone and Los Angeles types.

1. Cast iron body
4. Cast iron hose cap
6. Bronze hose outlet and valve seat
9. Bronze valve stem sleeve and stem nut
11. Bronze packing nut
- 13 & 14. Bolts and nuts
17. Cast iron pentagon protecting nut for stem (not ill.)
18. Cast iron hydrant cover (Standard and Keystone types)
19. Cast iron flanged sleeve, 2 1/2" or 4" valve size (L. A. types)
20. Bronze hose outlet retainer nut, 2 1/2" or 4" valve size (L. A. types)

Parts names for Del Monte type.

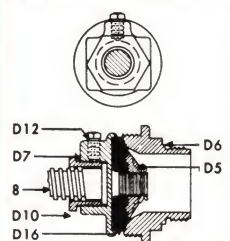
1. Bronze stem
2. Bronze packing nut
3. Bronze sleeve
4. Cast iron bonnet
5. Set of bonnet bolts
6. Bronze hose outlet, 2 1/2"
7. Bronze hose outlet, 4 1/2"
8. Cast iron caps, 2 1/2"
9. Cast iron hose caps, 4 1/2"
10. 2 1/2" rubber hose cap washers
11. 4 1/2" rubber hose cap washers
12. Steel hydrant chains
13. Bronze valve stem lock nut
14. Bronze set screws
15. Bronze valve carrier
16. Rubber composition valve
17. Bronze valve seat
18. Bronze retainer nut

VALVE ASSEMBLIES

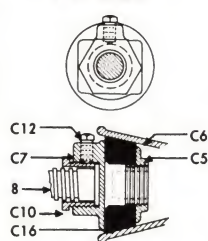
In 70 years, 4 different types of valve mechanisms have been used on the Standard and Improved California type hydrants, each of them a substantial improvement over its predecessors. In ordering valve assembly

parts, the type of valve should be identified from the illustrations below, and the part should be ordered by the proper number as well as names.

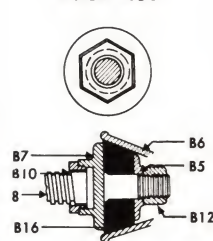
TYPE D IMPROVED, SET SCREW



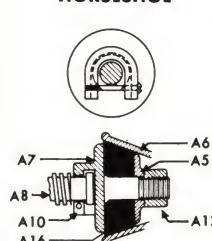
TYPE C SET SCREW



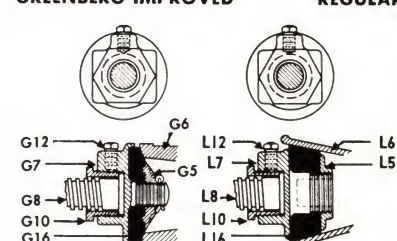
TYPE B LOCK NUT



TYPE A HORSESHOE



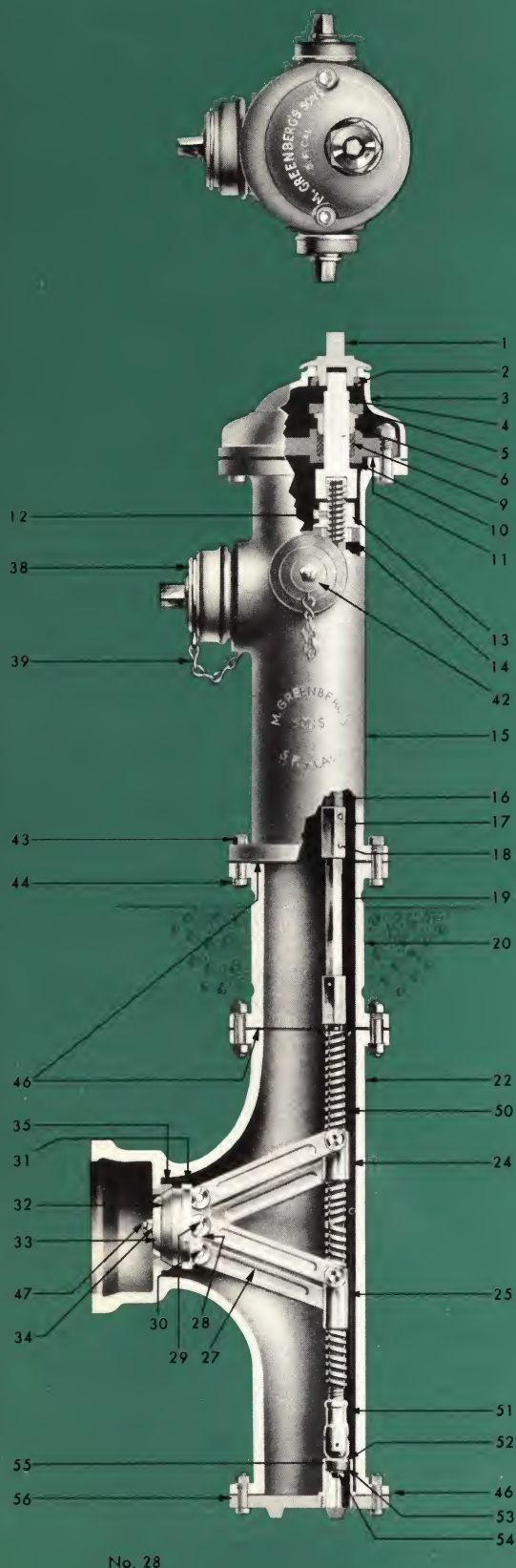
LOS ANGELES TYPES GREENBERG IMPROVED REGULAR



NO.	PART	NO.	PART	NO.	PART	NO.	PART	NO.	PART	NO.	PART
D5	Valve retainer	C5	Valve retainer	B5	Valve flange	A5	Valve flange	G5	Valve retainer	L5	
D6	Valve seat	C6	Valve seat	B6	Valve seat	A6	Valve seat	G6	Valve seat	L6	
D7	Valve carrier	C7	Valve carrier	B7	Valve carrier	A7	Valve carrier	G7	Valve carrier	L7	
8	Valve stem	8	Valve stem	8	Valve stem	A8	Valve stem	G8	Valve stem	L8	
D10	Lock nut	C10	Lock nut	B10	Lock nut	A10	Locking screw	G10	Lock nut	L10	
D12	Set screw	C12	Set screw	B12	Nut	A12	Nut	G12	Set screw	L12	
D16	Valve	C16	Valve	B16	Valve	A16	Valve	G16	Valve	L16	

CASCADE NO. 20 SERIES HYDRANTS

DRY BARREL FOR FREEZING CLIMATES



No. 28

Knuckle Joint Base Valve Fire Hydrants — This popular type is widely accepted throughout regions where **freezing** conditions prevail. The single base valve keeps all water shut off below the freezing level of the ground.

ADVANTAGES

- **A.W.W.A. Standard Specifications** for base valve hydrants complied with in every respect.
- **Federal Government Specifications** are met by the 5" valve models with large 7" barrel diameter.
- **Parts interchangeability** is possible between these and other hydrants built to same standards.
- **Break-off protection** confines collision damage to inexpensive, easily replaced riser section.
- **Strength and corrosion resistance** are provided by manganese bronze operating arms and **all** bronze working parts.
- **3 valve opening sizes** — 4", 4 1/2" and 5".

GENERAL SPECIFICATIONS

- Tested at 300 lbs. to work at 150 lbs.
- All bronze working parts, including manganese bronze operating arms.
- Heavy cast iron body and bury.
- Hard compounded rubber valve.
- Overall height above ground level flange—31 7/8".

MODELS

Outlets N. S. Hose Thread	4" valve opening Model Nos.	4 1/2" valve opening Model Nos.	5" valve opening Model Nos.
Single 2 1/2"	No. 21	-----	-----
Double 2 1/2"	No. 22	No. 25	No. 27
* 4 1/2" steamer and two 2 1/2"	No. 23	No. 26	No. 28
* 4 1/2" steamer and one 2 1/2"	No. 24	-----	No. 29

* Steamer hydrants are also available with 4", 5", and other outlets to your specifications.

Approximate shipping weight with 30" bury—4", 425 lbs.; 4 1/2", 450 lbs.; 5", 550 lbs. For each extra 6"—20 lbs. on 4" and 4 1/2"; 25 lbs. on 5".

WHEN ORDERING SPECIFY

1. **Model number.**
2. **Outlet threads**—National Std. Hose Threads are standard. Other threads can be furnished from specifications or samples.
3. **Bury** — 30" length and 6" or 4" inlet to calk cast iron or Transite pipe are standard. Other lengths or flanged type inlets can also be furnished.
4. **Drip valve** for draining barrel—specify if wanted; (essential in freezing climates).

PARTS (Hydrant size must be specified)

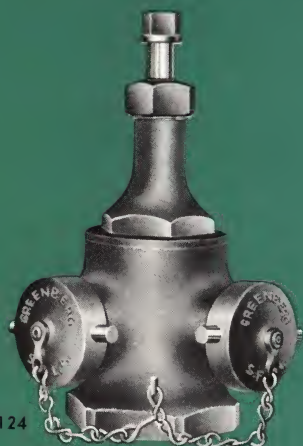
1. Operating nut	18. Coupling pins	38. Steamer hose cap
2. Operating nut locking nut	19. Operating rod extension	39. Hose cap chain
3. Cover	20. Riser	40. 2 1/2" bell N. I.
4. Operating Sleeve	22. Hub tee section	41. 2 1/2" cap washer N. I.
5. Gland plate	24. Upper stem nut	42. 2 1/2" hose cap
6. Gland	25. Lower stem nut	43. Flange nuts
7. Gland stud N. I.	27. Operating arms	44. Flange bolts
8. Gland stud nut N. I.	28. Valve carrier cotter pins	45. Head bolt, long
9. Packing	29. Valve carrier pin, long	46. Gasket
10. Head plate	30. Valve carrier pin, short	47. Valve carrier stud
11. Head plate gasket	31. Valve carrier	50. Stem
12. Collar set screw	32. Valve rubber	51. Drain valve holder
13. Stem collar	33. Valve retainer	52. Drain valve rubber
14. Deflector	34. Valve carrier nut	53. Drain valve washer
15. Body	35. Seat ring	54. Drain valve set screw
16. Operating rod	36. Steamer bell N. I.	55. Drain valve seat
17. Couplings (upper and lower)	37. Steamer cap washer N. I.	56. Bottom plate

N. I.—NOT ILLUSTRATED

FIRE VALVES AND WHARF HYDRANTS



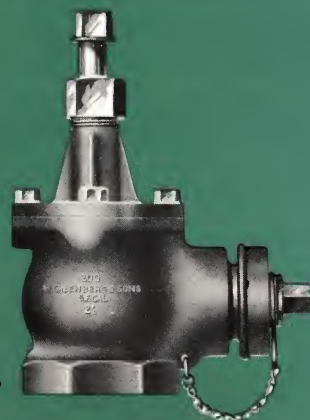
Nos. 119-123



No. 124



Nos. 109-113



Nos. 127-129

For fire protection installations, these hydrants are used extensively by small towns, suburbs of larger cities, private country estates, factories and storage yards. They are also used as auxiliary outlets on top of the California independent valve type fire hydrants.

SPECIFICATIONS

- **HIGH WORKING PRESSURE** - 300 lbs. pressure for bronze.
200 lbs. pressure for iron.
- **POSITIVE SHUTOFF** - - - - - Rubber valve discs on bronze seats.
- **STANDARD THREADS** - - - - - Standard pipe threads on inlets National Standard Hose Threads on outlets 2½" and larger. Pacific Coast Hose Threads on outlets 2" and smaller.
- **CHOICE OF STEM** - - - - - Tamper-proof bronze pentagon nut (furnished unless otherwise specified). Iron hand wheel for utility installations. (Furnished at no extra cost if so ordered.)
- **CAP AND CHAIN** - - - - - Furnished as standard equipment.

ALL-BRONZE HYDRANTS

Most generally preferred types, suitable for all types of installations, recommended for corrosion resistance, sturdiness and low cost.

MODEL NO.	NO. OF OUTLETS	OUTLET SIZES (See thread notes above)	INLET SIZE	LIST PRICE
SCREWED BONNET TYPES				
119A	1	1½"	1½" I.P.	11.55
119	1	1½"	2" "	11.55
120	1	2"	2" "	12.95
120½	1	2½"	2" "	15.95
121	1	2½"	2½" "	17.60
122	1	2½"	3" "	19.80
123	1	2½"	4" "	22.00
124	2	2½"	4" "	27.50
125	1	4"	4" "	45.10
125A	1	4½"	4" "	45.10
FLUSH TYPE WITH 90° ELBOW OUTLET (Not shown)				
126	1	2½"	2½" I.P.	32.65
126A	1	3"	3" "	46.00
126B	1	2½"	3" "	38.75
UNION BONNET TYPE				
117A	1	2"	2" I.P.	13.75
117	1	2½"	2" "	15.95
118	1	2½"	2½" "	17.60
118A	1	2½"	3" "	19.80
118B	1	2½"	4" "	22.00

IRON BODY HYDRANTS

Sturdily constructed to meet specifications calling for iron valve bodies.

MODEL NO.	NO. OF OUTLETS	OUTLET SIZES (See thread notes above)	INLET SIZE	LIST PRICE
SCREWED BONNET TYPE				
109	1	1½"	2" I.P.	17.70
110	1	2"	2" "	17.70
110½	1	2½"	2" "	19.15
111	1	2½"	2½" "	23.20
112	1	2½"	3" "	23.20
113	1	2½"	4" "	26.25
114	2	2½"	4" "	30.40
115	1	4"	4" "	38.90
115A	1	4½"	4" "	42.75
116	3	one 4", two 2½"	4" "	49.50
BOLTED BONNET TYPE				
127	1	2½"	2½" I.P.	23.30
128	1	2½"	3" "	23.30
129	1	2½"	4" "	32.40
137	2	2½"	4" "	39.75

M. GREENBERG'S SONS

NOZZLES

IMPROVED METROPOLITAN GEARED SHUT-OFF NOZZLES

These are widely used heavy duty nozzles with full 2 1/2" waterway. Their steady, positively operating geared valve mechanism cannot jam and eliminates water hammer and hose backlash in turning on and off even the highest fire fighting water pressures.

FEATURES AND CONSTRUCTION

- **Cast Bronze** of the highest grade is used throughout.
- **Completely Enclosed Mechanism** is protected from all external abuse and requires no adjustment
- **Male and Female Threads** on the valve body make it usable as a shut-off between two lengths of hose.
- **Standard Threads** are 2 1/2" National Std. Hose Threads unless otherwise specified.

No. 300	—Shut-off complete with playpipe and tip, chrome plated.....	\$110.00
No. 300A	—2 1/2" shut-off nozzle body only, chrome plated.....	\$ 70.00
No. 300B	—2 1/2" x 1 1/2" screw tip playpipe, body only (no tip or shut-off), chrome plated.....	\$ 31.50
No. 300C	—Short tip only, 1 1/2" x 3/4", 7/8", 1", 1 1/8", or 1 1/4", attaches to playpipe body, chrome plated.....	\$ 8.50
No. 300D	—Shut-off complete with one piece, smooth bore nozzle, chrome plated 1 1/2" with 5" long nozzle (polished brass \$2.50 less).....	\$ 70.00
	2 1/2" with 12" long nozzle (polished brass \$3.00 less).....	\$ 87.00
No. 300E	—Nozzle only, single piece, smooth bore, chrome plated 1 1/2", 5 inches long \$7.00 or 2 1/2", 12 inches long.....	\$ 17.00

UNIVERSAL AND FIRE BOAT NOZZLES

These nozzles enable one man to direct tremendous volumes of high pressure water from a fixed vantage point, a mobile unit, or a portable platform. Various models are used on fire boats, fire trucks, ships, docks, lumber yards, and industrial installations. Horizontal and vertical swivel joints permit universal motion, allowing the nozzles to cover large areas from the one point of operation. The stream is solidified by internal splitters. All types are cast bronze construction, finished in "fire red" enamel with polished brass trim. Chrome plated trim (at extra cost).

- **No. 294 Universal Monitor Nozzle**—Small, lever type, threaded or flanged to fit a standpipe for stationary installations on docks, buildings, and industrial operations. These nozzles are furnished complete with 2 1/2", 3", 3 1/2", or 4" female pipe threaded or flanged inlet, and 1 1/4", 1 1/2", 1 3/4", or 2" tips. When ordering, specify inlet size, tip size, and capacity desired.
600 GPM capacity.....\$150.00 1100 GPM capacity.....\$200.00
- **No. 294 1/2 Fire Boat Type Universal Monitor Nozzle**—Large capacity, geared type made in a number of sizes for fire boats, fire trucks, or any installations requiring large capacity output. Cast iron bases have standard flanges. Tips are removable (one furnished with the nozzle). When ordering, specify capacity, inlet size and tip size (or sizes) desired.

Capacity—GPM	1500	2000	2500	3000	6500
Inlet size	3 1/2"	4"	5"	6"	8"
Tip size—for 125 lbs. pressure	2 1/4"	2 1/2"	2 3/4"	3"	4 1/2"
Each	\$600	\$700	\$1200	\$1500	\$3000

- **No. 178 Portable Universal Nozzle**—Portable type, easily carried on any motor equipment. It sets up quickly and can be moved by hand to the best vantage point for fighting the fire. Water is supplied by two hoses attached to 2 1/2" or 3" inlets. The platform can be removed from the nozzle and is built in three sections to fold into minimum space. These nozzles are furnished complete with three tips, 1 1/4", 1 3/8", and 1 1/2". When ordering, specify capacity, inlet threads, and finish.

1100 GPM capacity (Geared type)	\$500.00	600 GPM capacity (Lever type)	\$350.00
Chrome plated trim.....	\$550.00	Chrome plated trim.....	\$400.00

EXTRA NOZZLE TIPS—FOR ALL TYPES OF UNIVERSAL NOZZLES

Size of nozzle GPM	600	1100	1500	2000	2500	3000	6500
Any size standard tip opening							
Polished brass	\$12.50	\$12.50	\$18.75	\$27.50	\$43.75	\$62.50	\$87.50
Chrome plated	\$15.00	\$15.00	\$22.50	\$35.00	\$52.20	\$75.00	\$105.00

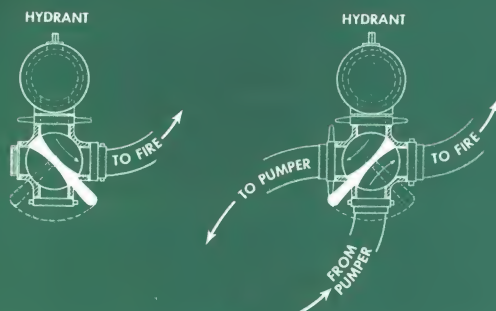
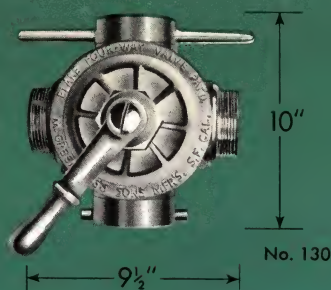
No. 300D

No. 300

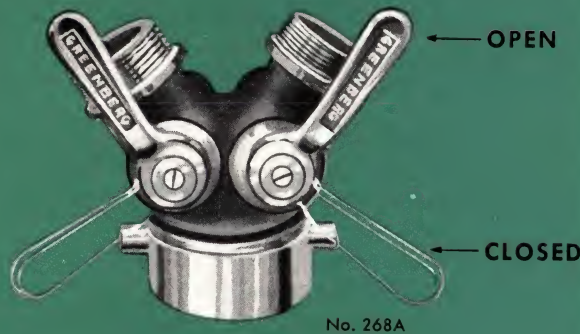
No. 294

No. 294 1/2

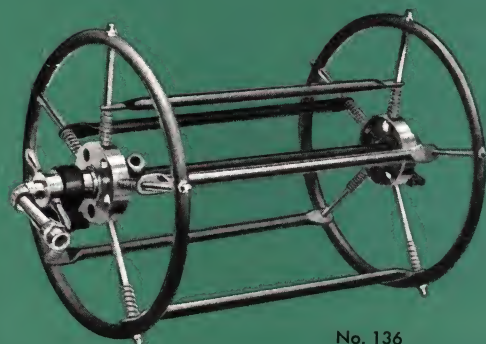
No. 178



No. 266



No. 268A



No. 136

BLAKE FOUR-WAY HYDRANT CONNECTION

For switching hoses instantly from regular hydrant pressure to engine pump pressure, this rapid acting valve attaches to the fire hydrant outlet. It is carried as regular equipment on hose wagons and pump- ing engines.

OPERATION

Rapid attachment to the hydrant puts a hose into action using hydrant pressure. Uninterrupted flow is maintained during the attaching of the pumper and changeover to high pressure.

FEATURES

High grade aluminum body provides high strength with light weight for easy handling. Spring lock trigger handle prevents accidental turning of the handle. 2 1/2" N.S. Hose Threads are furnished unless otherwise specified.

No. 130 Blake 4-way, polished brass trim.....\$120.00

No. 130 Blake 4-way, chrome trim.....\$122.00

GLEESON PRESSURE REDUCING VALVE*

To provide a positive reduction to any pressure from 300 lbs. down to 0 lbs., this rugged, compact regulator quickly attaches between the hydrant and the fire hose. Pressure settings are made simply and quickly by turning the calibrated adjusting collar. Permanent factory adjustments, fully enclosed working parts, and all bronze construction with monel metal wear points assure sustained accuracy and long, troublefree life. 2 1/2" N.S. Hose Threads (female on inlet and male on outlet) are standard.

* Patented

No. 266, 2 1/2" single type.....\$400.00

INDIVIDUAL SHUT-OFF SIAMESE

This greatly improved dividing Siamese connects to a 2 1/2" hose or gate valve to provide full 1 1/2" streams from two individually valved 1 1/2" hose outlets. It is carried as standard equipment by most fire departments and eliminates the use of extra gate valves and hose caps. Cast bronze is used throughout. Ground fit on plugs insure complete shut-off. Inlet threads are 2 1/2" N.S. Hose Thread; outlets are 1 1/2" Pacific Coast Hose Thread.

No. 268A Individual Shut-off Siamese, polished.....\$32.50

No. 268A Individual Shut-off Siamese, chrome plated.....\$37.85

CHEMICAL HOSE REEL

This specially designed reel mounts on a fire truck or apparatus to permit efficient operation of a chemical hose. An axis swivel connection permits chemical discharge even during uncoiling of hose. The reel is constructed of steel and bronze with take-up springs under the cross bar. Finish is enameled "fire red" with polished brass or chrome plated trim. Capacity is 250' of 3/4" or 200' of 1" chemical hose.

No. 136 chemical hose reel, polished brass trim.....\$100.00

No. 136 chemical hose reel, chrome plated trim.....\$120.00

OTHER FIRE DEPARTMENT EQUIPMENT

M. Greenberg's Sons has facilities to design and manufacture any special fire department equipment, basically made from brass or bronze. Connectors, adapters, swivels, Siamese couplings, bells, railings, plaques, and name plates are among the items regularly manufactured.



Ever since the disastrous earthquake and conflagration of 1906, the city of San Francisco has been unusually alert to the danger of fire and has demanded fully adequate fire protection for buildings, hotels, and apartment houses. Greenberg, being located in San Francisco, has cooperated with the city in developing standpipe fittings, sprinkler inlets, valves, and other brass goods of heavy, durable construction and large capacity. The high standards to which this equipment has been built has resulted in its widespread acceptance throughout the western states.

SAN FRANCISCO BUILDING LAWS pertaining to Standpipes

Because San Francisco's fire regulations are the West's most comprehensive, they can be regarded as a guide for adequate fire protection installations in other localities where no specific regulations exist. Note, however, that 2 1/2" rather than San Francisco's 3" is the most generally standardized fire hose size.

Section 3701. Every building of four or more stories in height shall have, inside or outside of its exterior walls (if over sixteen stories, standpipes must be inside) one or more metal standpipes, which shall extend from four feet above the sidewalk to and over the roof and rest on the fire walls. Every standpipe shall have a Siamese inlet attached four feet above the sidewalk, branches at each story, and a Siamese outlet on the roof. All inlets, branches and outlets to be of not less than three inches interior diameter and to have caps and chains, and all branches and outlets to have three-inch gate valves.

Standpipes shall conform to the following table:

	Interior Diam.	Sidewalk Inlets	Roof Outlets
4-story building.....	4"	2-way	2-way
5-story building.....	4"	3-way	3-way
6 to 15-story building.....	5"	4-way	3-way
16 or more story building.....	6"	6-way	4-way

All iron or steel material used in the construction and erection of standpipes shall be galvanized after being fitted to, and before being permanently placed in the building, and shall be kept in good order and repair and free from obstructions.

Standpipes shall be of such strength as will withstand a pressure of 300 pounds per square inch.

Whenever combination wet and dry standpipes are to be installed in any building, the inlet to said standpipes must be of the type known as M. Greenberg's Sons No. 222 (or equal) Hose Inlet with Spring Check Valves.

(Oakland same as above, except that 5-story building uses a 2-way roof connection)

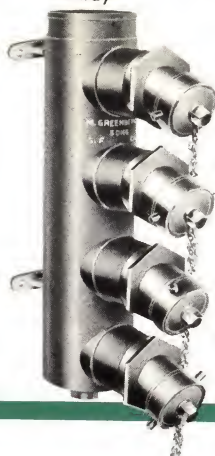


STANDPIPE INLET CONNECTIONS

No. 205
2 way



No. 207
4 way

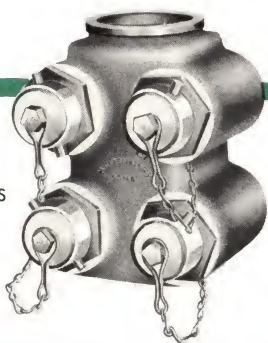


No. 200

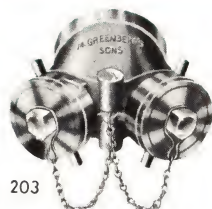


No. 201

No. 217S



No. 217L



No. 203



No. 204

APPLICATIONS AND ADVANTAGES

UNIVERSAL BOX TYPE FOR CONCEALED STANDPIPES

Nos. 205 to 209 and 215 to 219

This is the preferred type for neat external appearance and full unobstructed flow. Tested to 500 lbs. pressure to work at 300, its ample size brass body complies fully with San Francisco's building laws for dry standpipes. Individual screwed in snoots are fitted with ground seats, swivel hose connections, and non-interfering brass clappers. Polished bronze snoots are regularly furnished; chrome plated or white metal can be

furnished at additional cost. Nipples and bell extensions are used whenever the standpipe is buried more than 4 3/4 inches behind the wall surface (price does not include the nipples). No. 222 spring check snoots are used for wet standpipe operation (\$17.45 apiece extra). 3/4" bleeders, and special side, back or end outlets are also available on order. Bleeders are required in freezing climates.

UNIVERSAL SIAMESE INLET CONNECTIONS

Nos. 200 to 202 and 200-B.O. to 202-B.O.

With a choice of top or back outlet, the Siamese is adaptable either to concealed or exposed dry standpipes. Its performance is comparable to the box type described above, since it uses the same type inlets, has a heavy brass body tested to 500 lbs. to operate under 300 lbs. pres-

sure, and complies fully with the San Francisco Building Laws for dry standpipes. The Siamese inlet connection is a preferred type if the flush appearance of the concealed box type is not required. Bleeder is required in freezing climates.

LOS ANGELES TYPE—Square Arrangement

Nos. 217-S and 218-S

Furnished complete with No. 222S short spring check snoots, this type is suitable for "wet and dry" standpipe operation. The choice of top or back outlets makes it adaptable to either ex-

posed or concealed standpipes, and if ordered with No. 222 snoots, the box itself can be concealed. These models are furnished with bronze boxes and snoots.

LOS ANGELES TYPE—Vertical Arrangement

Nos. 215-L, 217-L and 218-L

Furnished complete with No. 222 spring check snoots, this type is designed for concealed "wet and dry" standpipes. Being less expensive inlets than the box type, they are suitable only

where local regulations permit standpipe inlets of lighter construction and smaller capacity. These fittings are all bronze construction.

LOS ANGELES TYPE SIAMESE INLET CONNECTIONS—4-inch

Nos. 203 to 204 1/2 (Furnished with 2 1/2" Hose Inlets only)

Two-way only, with a choice of top or back outlet for concealed or exposed dry standpipes, these Siamese are a smaller, lighter, and less expensive design, usable only where local

regulations permit. They are one piece cast bronze construction with swivel hose connections, individual rubber valve discs, and brass seats.

SPECIFICATIONS

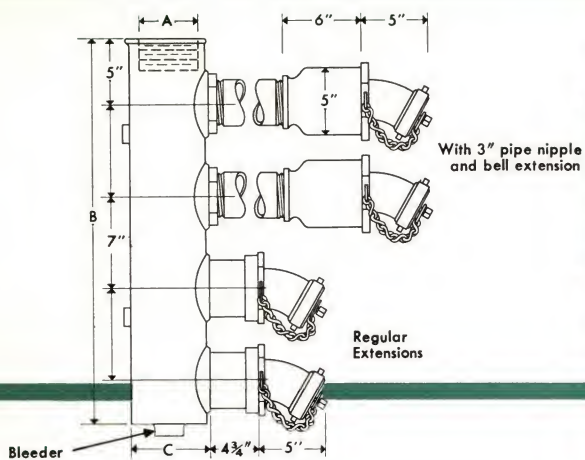
PART
NO.

TYPE

NO. OF
INLETS

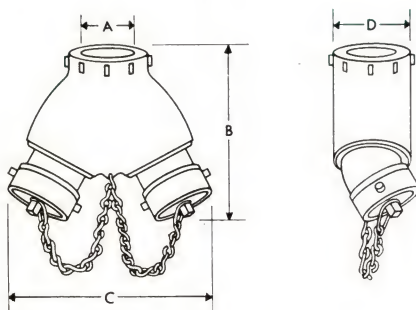
SIZE OF
OUTLETS
A

BOX TYPE FOR CONCEALED STAND- PIPES



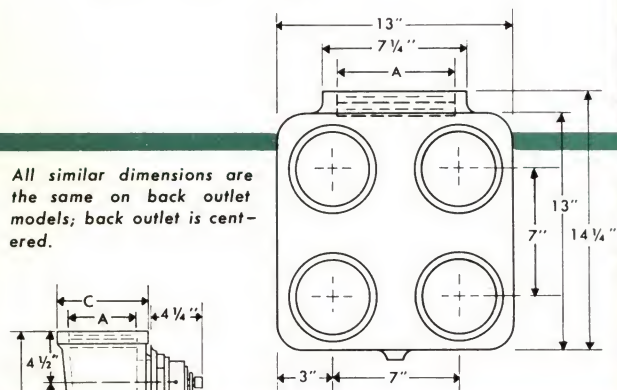
205	Reg. Extension	2	4"
206	" "	3	4"
207	" "	4	5"
208	" "	4	6"
209	" "	6	6"
215	Bell Extension	2	4"
216	" "	3	4"
217	" "	4	5"
218	" "	4	6"
219	" "	6	6"

SIAMESE INLET CONNECTIONS



200	Top outlet	2	4"
200-B.O.	Back outlet	2	4"
201	Top outlet	3	4"
201-B.O.	Back outlet	3	4"
202	Top outlet	4	5"
202-B.O.	Back outlet	4	5"

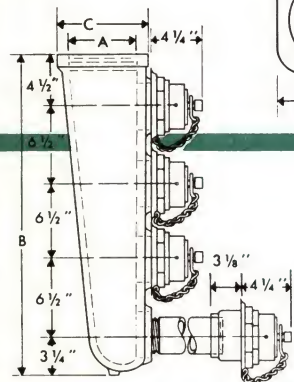
All similar dimensions are the same on back outlet models; back outlet is centered.



LOS ANGELES TYPE Square Arrangement

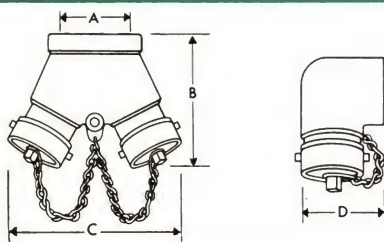
217S	Top outlet or back outlet	4	5"
218S	Top outlet or back outlet	4	6"

LOS ANGELES TYPE Vertical Arrangement



215L		2	4"
217L		4	5"
218L		4	6"

SIAMESE INLET CONNECTIONS (4-inch)



203	Straight pattern	2	4"
204	45° pattern	2	4"
204 1/2	90° pattern	2	4"

DIMENSIONS			PRICE
B	C	D	
15 1/4"	6"		\$103.50
22"	6 1/8"		\$148.00
28 3/4"	7 1/2"		\$214.00
28 3/4"	7 1/2"		\$221.00
43"	7 1/2"		\$323.00
15 1/4"	6"	3" pipe nipples not included in prices	\$110.50
22"	6 1/8"		\$160.00
28 3/4"	7 1/2"		\$229.00
28 3/4"	7 1/2"		\$236.00
43"	7 1/2"		\$345.00
Add 20% to above prices for chromium plated snoots.			
11 1/4"	13 1/2"	5 1/2"	\$ 50.00 rough finished
			\$ 62.00 polished snoots
			\$ 75.00 polished all over
13 1/16"	13 1/2"	6 3/4"	\$ 56.50 rough finished
			\$ 68.00 polished snoots
			\$ 93.00 polished all over
14"	18"	5 1/2"	\$ 93.75 rough finished
			\$112.00 polished snoots
			\$123.00 polished all over
16"	18"	6 3/4"	\$100.00 rough finished
			\$118.00 polished snoots
			\$148.00 polished all over
15"	22 1/4"	6 1/2"	\$143.75 rough finished
			\$168.00 polished snoots
			\$178.00 polished all over
16 3/4"	22 1/4"	7 1/2"	\$150.00 rough finished
			\$174.00 polished snoots
			\$209.00 polished all over
Add 20% to polished price for chromium plate.			
			\$137.30 polished snoots
			\$137.30 polished snoots
Add 20% for chromium plate.			
15 1/4"	6"		\$ 73.30 polished snoots
27 1/4"	8"		\$140.50 polished snoots
27 1/4"	8"		\$140.50 polished snoots
Add 20% for chromium plate.			
6 1/2"	8"	5 1/4"	\$24.80
7"	9 1/2"	5 1/4"	\$24.80
7"	9 1/2"	5 1/4"	\$34.30
} polished all over \$11.00 extra			
Add 20% to polished all over price for chromium plate.			

WHEN ORDERING STANDPIPE INLET

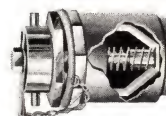
CONNECTIONS, SPECIFY:

- **Model Number**—Just the number alone designates type, number of inlets, and size of outlet.
- **Bodies**—All types are furnished in heavy cast bronze.
- **Finish**—All standpipe boxes and Siamese are available in rough or polished finish, chrome plated, or white metal. All inlet snoots for standpipe boxes are regularly furnished in polished finish.
- **Inlet threads**—2 1/2" National Standard Hose Thread is regularly furnished. 3-inch N.S. Hose Thread is furnished in San Francisco and Oakland. Other threads can be made to your specifications.
- **Type of Inlet**—Two basic types are available, the clapper type for dry standpipes, and the spring check type for "wet and dry" standpipes. Note which type is standard on the model being ordered; the alternative type can be specified if desired.
- **Special Modifications**—Bleeders, various special outlets, and other variations from standard models can be furnished to your specifications.

HOSE INLET CONNECTIONS

Spring check snoots, Los Angeles type

If a standpipe is to be used as a "wet and dry" system, these connections are required. They are furnished as standard equipment on all Los Angeles type standpipe fittings, and at extra cost they can be furnished on the other standpipe inlet boxes shown on the preceding pages.



No. 222



No. 222S

CONSTRUCTION

Body and valve seats are cast brass with a heavy bronze spring holding the valve in place. They are furnished complete with wall flange and with either straight or bent snoots. Straight snoots are furnished unless otherwise ordered (except the 3" hose inlet size, which is normally bent pattern).

No. 222—Combination Pattern

3" I.P. outlet x 2 1/2" hose inlet, polished.....\$22.00

3" I.P. outlet x 3" hose inlet, polished.....\$42.75

No. 222S—Short Pattern

3" I.P. outlet x 2 1/2" hose inlet, polished.....\$22.00

SPECIAL STANDPIPE BOX INSTALLATIONS

In addition to the standard designs shown on this and the preceding pages, special standpipe boxes and fittings of any configuration will be made to order.



Special horizontal six-way standpipe box with back outlet and polished snoots made for the Standard Oil Building, San Francisco.

AUTOMATIC SPRINKLER CONNECTIONS — "UNDERWRITERS' APPROVED"

Fully approved by both Underwriters' Laboratories, Inc., and Factory Mutual Fire Insurance Companies.



No. 196

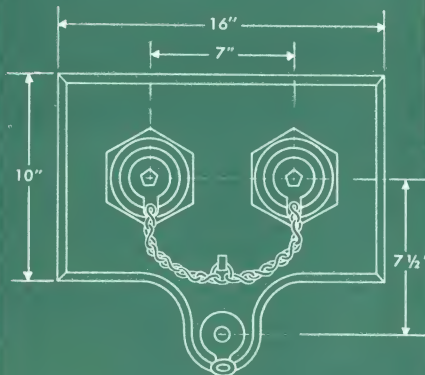
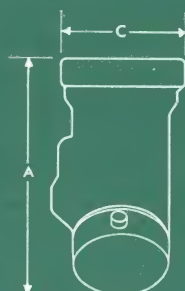
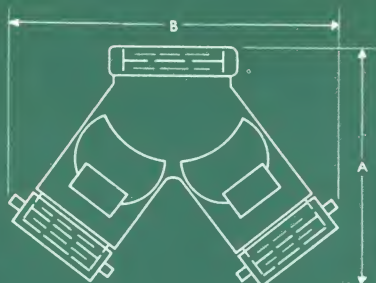


No. 198



No. 195

Fully approved by both Underwriters' Laboratories, Inc., and Factory Mutual Fire Insurance Companies.



Dimensional drawing of No. 195A. (Dimensions of body in wall are 12 1/2" long, 5 1/4" high, and 7" deep.) Dimensions of No. 195 are the same omitting the drain cock.

These connections are necessary to permit the fire department to attach hoses and apply engine pumper pressure to the building's automatic sprinkler system. All types are heavy cast bronze construction throughout with clapper type independent check valves. Four-inch pipe thread outlets are standard.

"UNDERWRITERS' APPROVED"

SIAMESE, EXPOSED TYPE

This type is built in straight, 45° and 90° patterns and is fully approved by both Underwriters Laboratories, Inc., and Factory Mutual Ins. Co. It is furnished with quickly removable or breakable cast iron caps; bronze plugs are available if desired. Hose inlets are furnished with N.S. Hose Threads unless otherwise specified. A round name plate can be furnished and is held in position by the Siamese.

MODEL	DESCRIPTION	DIMENSIONS			LIST
		A	B	C	
*196	Straight pattern with two 2 1/2" inlets	9 1/4"	12 1/2"	5"	\$35.00
*196A	90° bend on outlet, with two 2 1/2" inlets	8 1/2"	10 1/2"	5 3/4"	\$35.00
*196B	45° bend on outlet, with two 2 1/2" inlets	10"	11 3/4"	9"	\$39.40
*197	Straight pattern with two 3" inlets	9 1/4"	12 1/2"	5"	\$35.00
*197A	90° bend on outlet, with two 3" inlets	8 1/2"	10 1/2"	5 3/4"	\$35.00
*197B	45° bend on outlet, with two 3" inlets	10"	11 3/4"	9"	\$39.40
198	12" Diam. name plate to fit behind Siamese, polished, with approved lettering				\$ 9.90
199	Rectangular 4" x 8" name plate to set above Underwriters' Siamese, polished with approved lettering.				\$ 2.50

Any of the above can be furnished in polished or chrome plated finish at extra cost.

"UNDERWRITERS' APPROVED"

SIAMESE, FLUSH TYPE

Furnished complete with polished bronze name plate and plugs, this type is preferred for clean-cut external appearance. It is of adequate capacity and suitably furnished with check valves to fulfill all the requirements of the Underwriters' Laboratories.

No. 195 —Without Drain Cock, complete with name plate\$ 92.15
No. 195A—With Drain Cock, complete with name plate\$111.55

Add 20% for chrome plated finish.

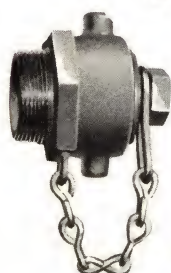
*Approved by Factory Mutual—Mark FM, and approved by Underwriter's Laboratories, Inc.—Mark GR-UN.

This fitting allows the fire department to relieve ammonia pressure of large refrigeration systems to forestall explosions in case of fire. By means of the fitting, the ammonia is mixed with water and wasted to the sewer.

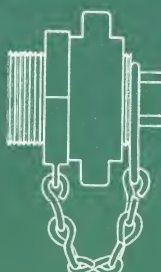
STANDARD SIZE is 1 1/2" female swivel inlet (Pacific Coast Hose Thread) by 1 1/2" pipe thread outlet (male or female). 2"x2" and 2 1/2"x2 1/2" are also available. All sizes are furnished complete with plug.

No. 190—1 1/2" x 1 1/2" Ammonia Connection....\$9.00

AMMONIA CONNECTION



No. 190



GROUND FLOOR HOSE PIPE CASINGS



No. 221



No. 155 "Chicago" Pattern



No. 160 "New York" Pattern

Required by ordinance in leading Pacific Coast cities, these fittings permit the fighting of basement fires through the floor of the ground level of stores or buildings, using circulating cellar nozzles, such as the Greenberg No. 286. Flange, cover, and handle fit flush and have a neat appearance even in conspicuous locations.

SAN FRANCISCO BUILDING CODES OF 1948

Section 3709 states in effect that unobstructed ground floor hose pipe casings are required wherever basements are used for storage of merchandise of any description. The number and location of these is to be determined by the fire department and will be not less than one to 900 square feet of floor surface. The design of the hose pipe casings is to conform to plans on file at the Department of Public Works, etc. . . .

DESIGN AND CONSTRUCTION

The Greenberg ground floor hose pipe casings conform to regulations in design and construction. They are of heavy steel pipe with cast iron or bronze rings and brass covers. Standard depth is 12 inches.

No. 220	Hose pipe casings with iron ring and brass cover, up to 12" long.....	\$19.00
No. 221	Hose pipe casing with polished brass ring and cover for marble or tile vestibules, well finished stores, offices, and hotel lobbies, lengths up to 12".....	\$24.00

Longer lengths can be furnished on order.

HOSE ANGLE VALVES

These inexpensive brass globe valves are used on hose racks, stand-pipe outlets, and utility hose connections. They are well machined and serve adequately in many applications.

CONSTRUCTION

Heavy cast brass with loose swivel rubber disk, rising stem, factory packed bonnet nut, and iron lever or wheel type handle. They are tested to 300 pounds pressure.

STANDARD THREADS

Unless otherwise specified, Pacific Coast Hose Threads are furnished on 1 1/4", 1 1/2", and 2" sizes and National Standard Hose Threads on 2 1/2" outlets.

TWO TYPES AVAILABLE

Both types have male hose thread outlets, the distinctions being the body shape and the inlet threads, the No. 155 having male pipe threads and the No. 160 having female pipe threads. Hose caps can be provided for either type.

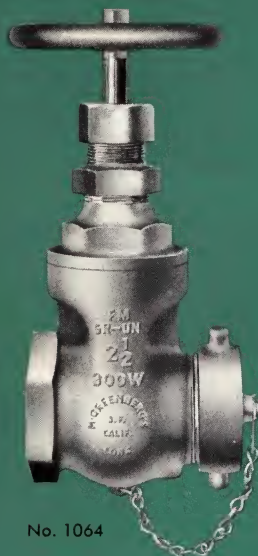
	Size, inches	1 1/4	1 1/2	2	2 1/2
No. 155	Hose Angle Valve	\$5.05	\$6.50	\$ 9.55	\$11.60
No. 160	Hose Angle Valve	\$6.00	\$7.50	\$10.25	\$12.75

M. GREENBERG'S SONS

HOSE GATE VALVES



No. 1050



No. 1064

These heavy bronze valves provide hose connections to standpipe outlets at each floor, on the roof, or throughout the building. They are sturdily built to withstand high standpipe pressures and are well finished, since they are generally installed in prominent view.

CONSTRUCTION

Bodies are cast bronze with solid wedge discs and taper seats. Stems are durable rolled brass, regularly furnished with Japanned hand wheel (brass wheel at extra cost). Heavy bonnet construction is designed to permit packing under pressure. Models 1050 and 1060 are tested to 400 pounds for a working pressure of 200 pounds.

FINISH

Regularly furnished rough with cap and chain included. Other finishes available are moss, polished, statuary bronze, or chrome plated (all at extra cost).

THREADS

Sizes 1 1/2" and 2" are Pacific Coast Hose Threads. Sizes 2 1/2" and 3" are National Standard Hose Threads. All inlet threads are American National Tapered Pipe Threads.

MODELS

No. 1050 is a 200 pound rising stem valve

No. 1060 is a 200 pound non-rising stem valve

***No. 1064**, non-rising stem, 300 pound valve, is designated GR-UN-FM. It is designed and built to the exacting requirements of the Underwriters' Laboratories, Inc. of Chicago and in addition meets the standards of the Associated Factory Mutual Fire Insurance Companies of Boston. No. 1064 valves are standard equipment for Federal, State, Municipal, and industrial installations calling for 300 pound Underwriters' Approved valves. They are furnished in sizes 1 1/2" and 2 1/2".

LIST PRICES		SIZE	1 1/2"	2"	2 1/2"	3"x2 1/2"	3"
		TYPE	ROUGH	ROUGH	ROUGH	ROUGH	ROUGH
No. 1050	Rising Stem		\$11.55	\$16.95	\$24.30	\$30.10	\$36.45
No. 1060	Non-rising Stem		\$11.55	\$16.95	\$24.30	\$30.10	\$36.45
*No. 1064	Underwriters' GR-UN-FM		\$13.15		\$30.00		

*Approved by Underwriter's Laboratories, Inc.—Mark GR-UN, and approved by Factory Mutual—Mark FM.

STANDPIPE ROOF CONNECTIONS

Made in one piece of corrosion resistant bronze throughout, these Siamese fittings with male outlets provide the simplest means for attaching the required number of hose gate valves to the roof end of the standpipe. The female pipe threads screw directly onto the standpipe and the male outlet threads connect to the hose gate valve without the extra expense of pipe nipples. Either 2 1/2" or 3" pipe thread outlets are available on all types, but 3" will be furnished unless otherwise specified. Regularly furnished plain bronze finish. Polished or chrome plated finish at extra cost.



No. 210



No. 211

No. 210	2-way Roof Connection, 4" inlet pipe thread	\$11.80
No. 210B	2-way Roof Connection, 5" inlet pipe thread	\$19.00
No. 211	3-way Roof Connection, 4" inlet pipe thread	\$22.70
No. 212	3-way Roof Connection, 5" inlet pipe thread	\$22.70
No. 213	3-way Roof Connection, 6" inlet pipe thread	\$25.40
No. 214	4-way Roof Connection, 6" inlet pipe thread	\$58.80

WALL FLANGES AND PLATES

These flanges and plates cover openings in the walls in back of hose inlet connections, Siamese connections, roof outlets, hose reels, hose gate valves and standpipe valves. All types are polished bronze or

nickel plated brass. Chromium plating is available at 20% extra cost. Name of building, architect, engineer or contractor may be cast on these plates at extra cost.

ROUND PLATES

Pipe size, inches	1½	2	2½	3	4	5	6
Plate diameter, inches	3½	4	5½	6	7½	9½	10½
No. 225—Polished cast bronze plain	\$1.50	\$1.75	\$2.35	\$2.90	\$4.65	\$5.85	\$7.00
No. 226—Polished cast bronze lettered	—	—	—	\$4.00	\$6.40	\$8.05	\$9.60

BEVELED RECTANGULAR PLATES

No. 228—beveled cast bronze polished.

	Height	Width	Distance C to C of holes	Price each No. 228
2-way	16"	9"	7"	\$23.00
3-way	23"	9"	7"	28.75
4-way	30"	9"	7"	37.40
6-way	44"	9"	7"	71.90

HOSE FITTINGS AND CONNECTIONS

Hose fitting sizes up to and including 2" will be furnished with Pacific Coast Hose Thread and sizes 2½" and larger will

have National Standard Hose Thread unless otherwise specified.

DOUBLE HOSE CONNECTIONS

Heavy cast brass pattern with hose threads on both ends. Pin-Lug type regularly furnished. Slipwell type is also available.

Size, inches	1¼	1½	2	2½
*No. 282—Double Female, plain	Each \$3.60	\$5.68	\$6.79	\$8.80
*No. 283—Double Female, polished or nickel plated	" 5.60	6.45	8.65	10.60
No. 284—Double Male, plain	" 2.00	2.75	4.15	6.05
No. 285—Double Male, polished or nickel plated	" 3.80	5.00	6.00	6.67

Chromium Finish add 20% to polished prices.

*Nos. 282 and 283—2½" size Double Female Connections for Fire Department use, swivel on both ends; therefore, cannot be incorrectly connected.

Can be furnished with pipe threads or special threads on either one or both ends; also with one end female and one end male for ammonia or other Fire Department connections.

BRASS HOSE NIPPLES

No. 295—Male Hose Nipples will be furnished with one end pipe thread and one end hose thread unless otherwise specified. No. 296—Male and Female Hose Nipples will be furnished with hose threads on male end and pipe thread on female end unless otherwise specified.

No. 295R—Male Reducing Nipples. Specify size and type of thread required on each end.

Size, inches	½	¾	1	1¼	1½	2	2½	3	3½	4
No. 295 —Male	Per Doz. \$2.73	\$2.73	\$4.00	\$10.87	\$12.00	\$16.80	\$33.60	\$48.00	\$60.00	\$88.75
No. 296 —Male and Female	" 2.73	2.73	5.93	11.53	12.67	17.73	35.20	50.40	63.00	107.80
No. 295R—Male Reducing	" —	6.70	7.45	16.30	20.90	28.10	58.70	82.45	104.00	151.20

HOSE BUSHINGS & REDUCERS

Hose threads on both ends are standard. (Pipe threads same price.) No. 297—furnished Slipwell type if desired.

Size, inches	1x¾	1¼x¾	1¼x1	1½x¾	1½x1	1½x1¼	2x¾	2x1	2x1¼	2x1½
No. 297—Per Doz...	\$3.73	\$10.67	\$13.27	\$15.13	\$15.13	\$16.00	\$17.20	\$18.60	\$21.00	\$23.73
No. 298—Per Doz...	3.73	10.67	13.27	15.13	15.13	16.00	17.20	18.60	21.00	23.73
Size, inches	2½x¾	2½x1	2½x1¼	2½x1½	2½x2	3x2	3x2½	4x2½	4x3	
No. 297—Per Doz...	\$26.40	\$29.13	\$30.33	\$31.67	\$34.27	\$39.60	\$47.53	\$73.33	\$76.27	
No. 298—Per Doz...	26.40	29.13	30.33	31.67	34.27	39.60	47.53	73.33	76.27	

HOSE CAPS

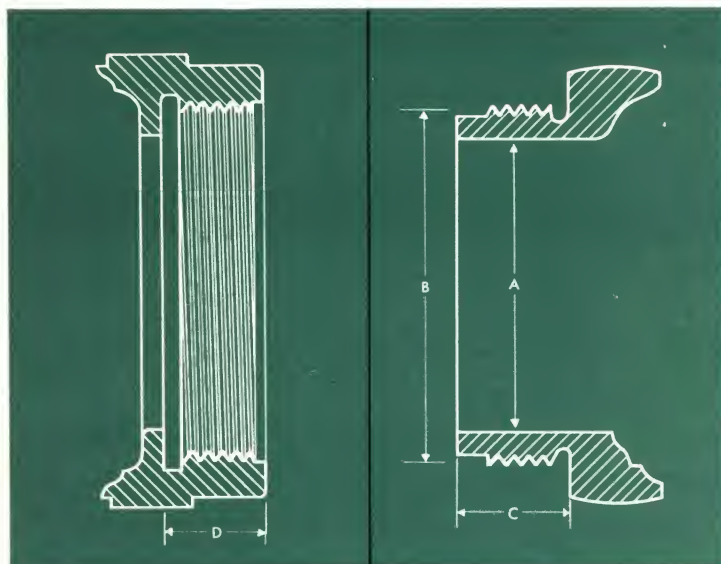
Slipwell type available if desired. Furnished plain or finished. List prices are without chains. Chains extra \$7.20 per doz.

Size, inches	¾	1	1¼	1½	2	2½	3	3½	4
Plain, Per Doz.....	\$ 8.90	\$ 8.90	\$11.50	\$12.80	\$23.00	\$28.80	\$41.60	\$51.85	\$57.60
Finished, Per Doz.....	11.15	11.15	14.40	16.00	28.80	36.00	52.00	64.80	72.00

M. GREENBERG'S SONS

HOSE COUPLING THREAD SPECIFICATIONS

The information presented on this page has been carefully compiled to serve as an accurate reference. However, because sizes and nomenclature of hose threads are confusing, orders for special threads should include nominal size of fitting, outside diameter of male threads, and number of threads per inch.



AMERICAN (NATIONAL) STANDARD HOSE COUPLING THREADS

These threads are referred to throughout this catalog as National Standard Hose Threads or N.S. Hose Threads. (Note that several distinct types are listed under certain diameters.) Reference: U. S. Dept. of Commerce Handbook H28 (1944) Screw Threads for Federal Services.

Name of hose thread	Nominal size of hose (A)	Max. O.D. of male threads (B)	No. of threads per inch (C)	(D)
Garden Hose Thread	1/2"	1.0625"	11 1/2	9/16
	5/8"	1.0625"	11 1/2	9/16
	3/4"	1.0625"	11 1/2	9/16
Chemical Hose Thread	3/4"	1.3750"	8	5/8
	1"	1.3750"	8	5/8
Fire Protection Hose Thread	† 1 1/2"	1.9900"	9	5/8
Iron Pipe Hose Thread, for steam, water, air, oil, and all other hose connections	1/2"	.8248"	14	1/2
	3/4"	1.0353"	14	9/16
	* 1"	1.2951"	11 1/2	9/16
	* 1 1/4"	1.6399"	11 1/2	5/8
	* 1 1/2"	1.8788"	11 1/2	5/8
	* 2"	2.3528"	11 1/2	3/4
Fire Hose Coupling Threads	* 2 1/2"	3.0686"	7 1/2	1"
	* 3"	3.6239"	6	1 1/8"
	* 3 1/2"	4.2439"	6	1 1/8"
	4 1/2"	5.7609"	4	1 1/4"

* These threads are also known as Navy Hose Threads — specification 34-F3.

† This thread is also known as an N.F.P.A. Thread (National Fire Protection Association).

*STEAMER THREADS ON STANDARD FIRE APPARATUS

Inside diam. of hose connection	4"	5"	6"
Make	Max. O.D. male thread	Max. O.D. male thread	Max. O.D. male thread
Ahrens — Fox	5.070"	6.228"	7.023"
American LaFrance	5.085"	6.150"	7.000"
International Motor, Mack		6.225"	6.975"
Seagrave	4.955"	6.052"	7.048"

* These 4", 5", and 6" threads are all 4 threads per inch.

HOSE SIZE	MAX. OUTSIDE DIAM. MALE THREAD (B)	THREADS PER INCH	HOSE SIZE	MAX. OUTSIDE DIAM. MALE THREAD (B)	THREADS PER INCH
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PACIFIC COAST HOSE THREAD, also known as CALIFORNIA STANDARD HOSE THREAD

3/4"	1.0625"	11	2 1/2"	3.035"	7 1/2
1"	1.3125"	11	3"	3.625"	6
1 1/4"	1.860"	11	3 1/2"	4.25"	6
1 1/2"	2.100"	11	4"	5.00"	4
2"	2.550"	10			

STRAIGHT IRON PIPE THREAD*

Used on hose couplings.

1 1/2"	1.880"	11 1/2	3"	3.4718"	8
2"	2.354"	11 1/2	3 1/2"	3.9721"	8
2 1/2"	2.8455"	8	4"	4.470"	8

NAVY HOSE THREAD*—Specification 34-F3.

Inasmuch as the Navy uses different hose threads for various fluids, complete specifications (No. of threads per inch, outside diameter of male threads, etc.) should always be given when ordering.

4"	4.9082"	6	[For other sizes see sizes * on left side of this page.]		
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EASTERN HOSE THREAD

3/4"	1.0781"	11	1 1/2"	1.9687"	11
1"	1.4219"	11	2"	2.6719"	7 1/2
1 1/4"	1.6875"	11 1/2			

NEW YORK CITY FIRE DEPARTMENT THREAD

1"	1.660"	8	3"	3.630"	8
1 1/2"	2.100"	8	3 1/2"	4.070"	8
2"	2.530"	8	4"	4.610"	8
2 1/2"	3.030"	8	4 1/2"	5.800"	4

NEW YORK CORPORATION THREAD

1 1/2"	2.093"	11	2 1/2"	3.00"	8
2"	2.547"	11			

CHICAGO HOSE THREAD

3/4"	1.081"	11 1/2	1 1/2"	1.946"	11 1/2
1"	1.295"	11 1/2	2"	2.522"	8
1 1/4"	1.705"	11 1/2	2 1/2"	3.043"	7

CHICAGO FIRE DEPARTMENT THREAD

1 1/2"	1.946"	11 1/2	3 1/2"	4.070"	8
2 1/2"	3.0156"	7 1/2			

UNDERWRITERS' TIP THREAD

	2 3/16"	12			
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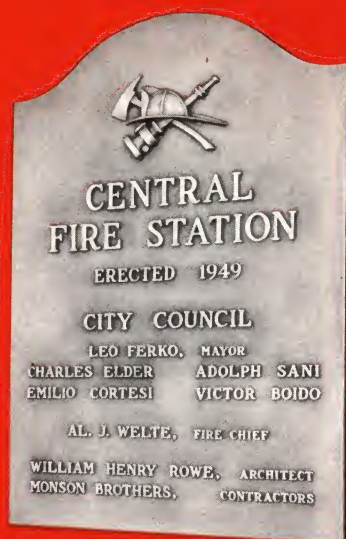
SAN FRANCISCO FIRE DEPARTMENT THREAD

1 1/2"	2.03125"	5 square thread			
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* See American Standard Hose Coupling Threads for other sizes.

Except where otherwise noted, threads listed on this page are of the standard 60° V thread form.
SENDING A THREAD SAMPLE PROTECTS YOU FROM ERROR

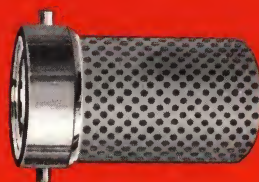
OTHER GREENBERG BRASS AND BRONZE PRODUCTS



Size 16"x24"



No. 276



No. 292



No. 288



No. 353 JM

In addition to the fire protection equipment specifically listed in this catalog, Greenberg manufactures a wide line of other items needed by fire departments, public works departments, architects and building contractors. A few of these items are listed below. Further information and prices are available either from the Greenberg general catalog or by direct inquiry to the sales department.

ARCHITECTURAL

High quality brass and bronze goods for outfitting buildings, hotels, apartments and commercial establishments include plaques, door pushbars, stair railings, threshold plates, lavatory fittings, drainage fittings, etc. Standard designs are listed in the Greenberg general catalog; custom made designs can be furnished on order. Polished brass, nickel plate or chromium plate finishes can be had on most items.

FIRE DEPARTMENT

Greenberg manufactures a wide range of connections, adapters, swivels, Siamese, couplings and nozzles. Fire bells, slide poles, plaques and brass and bronze goods for fire stations can also be furnished.

PUBLIC WORKS

Greenberg's standard line includes a wide range of valves, bronze pipe fittings, drainage fittings, inspection covers, street washer boxes, etc. The street washer box illustrated is a special design adapted to thin outside building walls; it is particularly useful on one or two story school buildings and other low structures.

BRASS AND BRONZE GOODS MADE TO ORDER

Having available San Francisco's finest brass, bronze and aluminum foundry and machine shop facilities, M. Greenberg's Sons welcomes inquiries regarding new or special items outside the regular catalog listings.

M. GREENBERG'S SONS

SALES OFFICES

PORTLAND 4, OREGON
526 Builders Exchange Bldg.
Phone: ATwater 6443

SEATTLE, WASH.
1016 1st Ave. South
Phone: ELliott 5007

SPOKANE 8, WASH.
614 Peyton Bldg.
Phone: Rlverside 5433

SALT LAKE CITY 1, UTAH
211 Interurban Bldg.
Phone: 3-4436

DENVER, COLO.
524 Mining Exchange Bldg.
Phone: TAbor 0765

EL PASO, TEXAS
Call L. A. Office

HOUSTON, TEXAS
1309 Anita Street
Phone: JACkson 2-3074

DALLAS, TEXAS
Camp and Griffin Streets
Phone: Rlverside 9691

LOUISIANA & EAST TEXAS

WASHINGTON, D. C.
Southern Bldg.
Phone: NATional 6313

NEW YORK CITY
30 Church Street
Phone: BEekman 3-9281

HARTFORD, CONN.
65 Wardwell Road
West Hartford, Conn.
Phone: HArtford 3-9230

HAWAII & PHILIPPINES

M. GREENBERG'S SONS

FOUNDED 1854

BRASS FOUNDRY AND MACHINE WORKS

HOME OFFICE AND FACTORY

765 FOLSOM STREET
SAN FRANCISCO 7, CALIFORNIA
PHONE: EXBROOK 2-3143

SOUTHERN CALIFORNIA SALES
OFFICE AND WAREHOUSE

1001 EAST FIRST STREET
LOS ANGELES 12, CALIFORNIA
PHONE: MADISON 7662

NORTHWEST SALES
OFFICE AND WAREHOUSE

1016 1st AVE. SOUTH
SEATTLE 4, WASHINGTON
PHONE: ELLIOTT 5007